



## TEACHERS' ENERGY RESOURCE DIRECTORY

If you have additional programs or information that should be included this directory, please e-mail Chris Graillat, California Energy Commission Education Coordinator, at [CGrailla@energy.state.ca.us](mailto:CGrailla@energy.state.ca.us)

Organization	<b>BP / A+ for Energy Grant program</b>
Address/Education contact	6 Centerpointe Drive 6-797 La Palma, CA 90623 Program Contact: Brenda Castillo, Director Western Region Community Affairs <a href="mailto:Brenda.castillo@bp.com">Brenda.castillo@bp.com</a>  Irene Brown, National Program Director A+ for Energy <a href="mailto:Irene.Brown@bp.com">Irene.Brown@bp.com</a>  Stacy Sinclair-Tarr <a href="mailto:stacy.sinclair@edexcellence.com">stacy.sinclair@edexcellence.com</a> 310-892-1118
Web site (please describe what the Web site offers)	<a href="http://www.aplusforenergy.com">www.aplusforenergy.com</a> Provides the current grant application, ability to apply online, descriptions of past winning applications and application tips.
Lesson plans	N/A
Supplemental classroom activities, e.g., Hazard Hamlet	<a href="http://www.bp.com/us/education">www.bp.com/us/education</a> Provides teachers with a variety of resources to help teach about energy and energy conservation. This includes downloadable posters and leaflets, interactive games, videos and stories, simulations, interactive graphs, and instructional kits for purchase. All resources are aligned with the California content standards.
Teacher training	All A+ for Energy grant winners receive a 3-day all expense paid workshop on energy content and activities to apply this content in the classroom.
Mentoring program	Some of our winners and judges have become members of our ambassador program, a program designed to help get the word out about the grant and share grant writing tips to potential applicants.
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	N/A
Grants	A+ for Energy provides grants of \$5,000 and \$10,000 to teachers (public, private, charter) to help them teach about energy and energy conservation. Check the website for the application deadline.
Other projects	
Current joint projects with other organizations (please list)	"A Place of Our Own" and "Los Niños en Su Casa" is an award winning television series sponsored in partnership with KCET.
Interest in joint projects? Yes/no If so, what type?	

Organization	<b>California Department of Forestry and Fire Protection (CAL FIRE)</b>
Address/Education contact	Kay Antunez, Statewide Coordinator for the Project Learning Tree program PO Box 944246 Sacramento, CA 94244-2460  <a href="mailto:Kay.Antunez@fire.ca.gov">Kay.Antunez@fire.ca.gov</a> 916- 653-7958
Web site (please describe what the Web site offers)	<a href="http://www.fire.ca.gov">www.fire.ca.gov</a>  [unfortunately very little about environmental education at this time]  <a href="http://www.plt.org">www.plt.org</a> is the national Project Learning Tree website where we direct teachers to learn more about the PLT program
Lesson plans	Project Learning Tree offers a PreK-8 activity guide with many energy activities and a separate “kit” of teaching materials called “Energy&Society”.
Supplemental classroom activities, e.g., Hazard Hamlet	
Teacher training	Extensive network of educator workshops offered statewide; ~2000 educators trained annually.
Mentoring program	none
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	none
Grants	Urban Forestry Tree planting grants; “GreenWorks” grants offered by the national PLT program which CDF promotes
Other projects	
Current joint projects with other organizations (please list)	Collaborate extensively with Department of Fish and Game (Project WILD), Water Education Foundation (Project WET) and other state agencies.
Interest in joint projects? Yes/no  If so, what type?	YES!  Collaborate on professional development opportunities to introduce educators to Project Learning Tree’s “Energy&Society” materials

Organization	<b>Energy Education Group</b> (aka Energy for Keeps)
Address/Education contact	Marilyn Nemzer, Editor and Project Director 664 Hilary Drive Tiburon, CA 94920  <a href="mailto:mnemzer@marin.org">mnemzer@marin.org</a> 415-435-4574 415-435-7737 FAX
Web site (please describe what the Web site offers)	<a href="http://www.energyforkeeps.org">www.energyforkeeps.org</a>  Offers opportunity to purchase Energy for Keeps in either bound or electronic form. Free downloadable student activities and other teacher support, including content standards correlations.
Lesson plans	
Supplemental classroom activities, e.g., Hazard Hamlet	Suggestions for teachers and classroom activities.
Teacher training	Energy for Keeps is being used by several schools for teacher-training in environment and energy.
Mentoring program	
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	
Grants	
Other projects	
Current joint projects with other organizations (please list)	
Interest in joint projects? Yes/no  If so, what type?	Definitely interested.  Flexible.

Organization	<b>Geothermal Education Office</b>
Address/Education contact	Marilyn Nemzer, Executive Director 664 Hilary Drive Tiburon, CA 94920  <a href="mailto:mnemzer@marin.org">mnemzer@marin.org</a> 415-435-4574 415-435-7737 FAX
Web site (please describe what the Web site offers)	<a href="http://www.geothermal.marin.org">www.geothermal.marin.org</a>  Offers friendly, basic information about geothermal energy. Super slide show. Offers video and other classroom and educational materials.
Lesson plans	
Supplemental classroom activities, e.g., Hazard Hamlet	Yes, information and student activities for grades 4-12.
Teacher training	
Mentoring program	
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	Can get speakers on geothermal energy. Possibly can arrange field trips.
Grants	
Other projects	
Current joint projects with other organizations (please list)	
Interest in joint projects? Yes/no	Yes.  Flexible.
If so, what type?	

Organization	<b>Lawrence Berkeley National Laboratory's Environmental Energy Technologies Division</b> and <b>Center for Science and Engineering Education</b>
Address/Education contact	1 Cyclotron Road Berkeley, California 94720  At EETD: Allan Chen (510) 486-4210 Rick Diamond (510) 486-4459  At CSEE: Laurel Egenberger (510) 486-4459
Web site (please describe what the Web site offers)	Environmental Energy Technologies Division <a href="http://eetd.lbl.gov">http://eetd.lbl.gov</a> <a href="http://eetd.lbl.gov/einfo-students.html">http://eetd.lbl.gov/einfo-students.html</a>  Energy education links; using the Home Energy Saver audit program in classrooms  Center for science and Engineering Education: <a href="http://csee.lbl.gov/">http://csee.lbl.gov/</a> Information on student opportunities at Berkeley Lab
Lesson plans	<a href="http://energizedlearning.lbl.gov/">http://energizedlearning.lbl.gov/</a> has a lesson plan for teaching the Home Energy Saver audit program in classrooms.
Supplemental classroom activities, e.g., Hazard Hamlet	
Teacher training	Berkeley Lab's Center for Science and Engineering Education has some teacher training activities. <a href="http://csee.lbl.gov/">http://csee.lbl.gov/</a>
Mentoring program	N/A
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	The Center for Science and Engineering Education offers some tours for junior high students, and career talks. <a href="http://csee.lbl.gov/Talks.html">http://csee.lbl.gov/Talks.html</a>
Grants	
Other projects	
Current joint projects with other organizations (please list)	HVAC technician curriculum development with Oakland's Laney College <a href="http://eetd.lbl.gov/ea/mills/CC_education/CC_Education.html">http://eetd.lbl.gov/ea/mills/CC_education/CC_Education.html</a>
Interest in joint projects? Yes/no  If so, what type?	Yes Develop a teacher training program for Home Energy Saver. Curriculum development for vocational environmental technician training.

Organization	<b>Los Angeles Department of Water and Power (LADWP)</b>
Address/Education contact	Walter Zeisl, Manager of Environmental Education Room 1536 P.O. Box 51111 Los Angeles, CA 90051  <a href="mailto:walter.zeisl@ladwp.com">walter.zeisl@ladwp.com</a> 213-367-1242
Web site (please describe what the Web site offers)	<a href="http://www.ladwp.com">www.ladwp.com</a> Lists education programs; provides information on general LADWP issues
Lesson plans	20 different lesson plans available at teacher workshops
Supplemental classroom activities, e.g., Hazard Hamlet	
Teacher training	40-50 k-12 workshops in cooperation with LAUSD
Mentoring program	16 adopt-a-schools
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	LADWP Science Bowl for high schools Times in Education, newspaper in classrooms grades 4-12 Speakers Bureau available grades 4-12 Outdoor Electric Safety demonstrations
Grants	
Other projects	
Current joint projects with other organizations (please list)	Teacher workshops with LAUSD and MWD
Interest in joint projects? Yes/no  If so, what type?	Yes  Development of lesson materials; workshops; programs to reach students in City of Los Angeles Note: Schools must in LAUSD or City of LA

**Los Angeles Department of Water and Power  
Classroom Lesson Materials Provided To Schools in the  
City of Los Angeles and Los Angeles Unified School District  
Through Teacher Workshops**

<b><u>Lesson Title, Grade Levels</u></b>	<b><u>Publisher</u></b>
Water and Ice, Kindergarten Mountain View, California	Creative Publications
Power of Science, Electricity And Magnetism Kit, 4 and 5	ETA Cuisenaire, Illinois
Mouse House Surprise, K-1	Enterprise for Education
Sam and Jody Save the Circus, 2-3	Enterprise for Education
Paths for Electricity, 4-5	Enterprise for Education
An Electric Engineer Puts on a Safe Concert , 5 and gifted	Enterprise for Education
Electricity from Wind, Water and Sunlight, 4-8	Enterprise for Education
Renewable Energy, 4-8	Raintree, Chicago
Water Fun, Grades 3-5	Los Angeles Department of Water and Power
Water from Nature to You (being revised), Grades 4-8	Los Angeles Department of Water and Power
Water Science Kit, Grades 4-8 (being revised)	Los Angeles Department of Water and Power
Give Water a Second Chance... Recycle It!, 5-8	Water Education Foundation
Safe and Simple Electricity Experiments	Dover Publications, NY, NY
Teachers Guide to Power Plant I, 5-12	Los Angeles Department of Water and Power
Water Precious Water	AIMS Education Foundation
Conservation Connection, Grade 6	Central and West Basin Municipal Water District, Calif. Dept. of Water Resources funded
Water Times, Grade 6	Metropolitan Water District
Water Quality, the Qualities of Science Of Water, Grades 7-8	Metropolitan Water District
Water Works, 9-12 (curriculum on careers)	Metropolitan Water District
Project WET, K-12	Project WET International, Council for Environmental Education

Organization	<b>City of Lodi Electric Utility</b>
Address/Education contact	<p>Rob Lechner, Mgr. Customer Service &amp; Programs  1331 S. Ham Lane  Lodi, CA 95242</p> <p><a href="mailto:rlechner@lodielectric.com">rlechner@lodielectric.com</a>  209-333-6800, extension 2583</p>
Web site (please describe what the Web site offers)	<p><a href="http://www.lodielectric.com">www.lodielectric.com</a></p> <p>Our web site is currently being updated to include all educational program offerings; right now it only features our safety demonstration: Hazard Hamlet. Otherwise, our web site does offer right now rates information, rebate program information and links to other energy-related topics.</p>
Lesson plans	None available.
Supplemental classroom activities, e.g., Hazard Hamlet	See above.
Teacher training	Through our program Lodi Solar Schoolhouse, we do provide teacher training opportunities.
Mentoring program	None available at this time.
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	We currently offer in-classroom presentations on energy conservation, renewable energy topics and electric safety. These presentations are also available to the general public (we simply tailor the presentation to meet an older audience).
Grants	We do provide through our Public Benefits Program grants to non-profit organizations pursuing energy conservation or renewable energy projects.
Other projects	Under development.
Current joint projects with other organizations (please list)	All of our programs are coordinated through the utility, serving as the "point organization." The lone exception is a program called the Lodi C.A.R.E. Package Program, co-coordinated by the Lodi Salvation Army; this program is designed to serve low-income customers in paying monthly utility bills.
Interest in joint projects? Yes/no  If so, what type?	We would be very desirous of joint projects with other electric service providers, state or local agencies, governmental agencies, etc. As for topics: to be discussed.

Organization	<b>NEED Project—National Energy Education Development Project</b>
Address/Education contact	National: 8408 Kao Circle, Manassas, VA 20110 Local: 1764 S. Tuxedo Ave., Stockton, CA 95204  Program Coordinator: Barry Scott <a href="mailto:bscott@need.org">bscott@need.org</a> 209-464-5663
Web site (please describe what the Web site offers)	<a href="http://www.need.org/">http://www.need.org/</a> Energy Education—Resources, Curriculum, Grant Opportunities, Teacher Training, Energy Management Tools, much more
Lesson plans	K-12, Forms and sources of energy, solar and alternative energy, electricity generation, transportation fuels, energy management for home and school. Correlated to state and national science, history, language arts standards.
Supplemental classroom activities, e.g., Hazard Hamlet	National Youth awards, service learning, performing arts, games and icebreakers, after school programs, school energy management activities, much more.
Teacher training	Yes, K-12
Mentoring program	Support of teacher to teacher networking, partnerships with public agencies, private enterprise & utility providers to support school staff.
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	Yes, special visits and support provided per request. National Youth Awards competition for school projects related to energy.
Grants	Yes; A+ for Energy, PG&E Solar Schools, others
Other projects	Under development
Current joint projects with other organizations (please list)	BP's A+ for Energy, PG&E's Solar Schools Program
Interest in joint projects? Yes/no  If so, what type?	Yes, any related to energy sources, energy management and conservation, alternative energy, teacher development, school support programs, curriculum development, grant opportunities

Organization	<b>The Energy Coalition – PEAK Program</b>
Address/Education contact	<p>Sarah L. Mills  Director, PEAK Student Energy Actions  <a href="mailto:SMills@energycoalition.org">SMills@energycoalition.org</a>  949.701.4646 Ext. 14</p> <p>15615 Alton Parkway, Suite 245  Irvine, CA 92615</p> <p>Or</p> <p>77 Beale Street, Room 848F  Mail Code: B8R, PG&amp;E  San Francisco, CA 94105</p>
Web site (please describe what the Web site offers)	<p><a href="http://www.peakstudents.net">www.peakstudents.net</a></p> <p>The PEAK website, geared to a 4<sup>th</sup>-grade reading level, offers engaging information for students and teachers to further explore energy-saving concepts taught through PEAK:</p> <ol style="list-style-type: none"> <li>1. Shifting Energy Use Off Peak Demand Time</li> <li>2. Shrinking Energy Use by Cutting Waste</li> <li>3. Exploring Renewable Energy</li> <li>4. Plugging In to New Technology</li> </ol> <p>The Energy Challenge Software, a key component of the PEAK curriculum, is housed on the PEAK Students Network Web site (peakstudents.net). Through games and trivia challenges, the software enhances understanding of PEAK concepts, allowing students to simulate the effects of smart energy management at home and in the community. The website also offers information and links to enhance understanding of smart energy management.</p> <p>“Bulb Man” and “The Energy Sucker” appear throughout the PEAK program both as life-size mascots at special events and in the PEAK materials, including the website. As energy mascots, they add elements of fun and lightheartedness, increasing the impact of the serious and sophisticated concept of smart energy management.</p>
Lesson plans	<p><i>The foundational concept behind PEAK is that in order to truly empower students to manage energy use, they must understand the entire energy equation—from the science of how energy is created to the environmental impact of generating electricity to the energy bills of a family.</i></p> <p><u><i>Service-learning is the framework for the lessons, uniquely empowering young students to teach their parents and siblings about the concept of smart energy management.</i></u></p> <hr/> <p>The PEAK <b>Teacher Resource Guide Book</b> contains  11 Units which align with physical science, earth science, math and language arts content standards for grades 4 – 6.</p> <p>The Units – each focusing on one of the four PEAK Student Energy Actions—can be taught as a stand-alone unit or within the series of other lessons. Each lesson is fully comprehensive including student learning objectives, content standards correlations, vocabulary words, a lesson background, lab instructions,</p>

	<p>supply list, pre- and post- activity reflection questions and suggested community activities.</p> <p>The Guide Book is also accompanied by a <b>Tool Kit</b> containing all the supplies (worth \$350) needed to complete the hands-on science lab activities integrated with the Guide Book.</p> <p>Each participating PEAK teacher receives their own copy of the Guide Book and their own Tool Kit.</p>
Supplemental classroom activities, e.g., Hazard Hamlet	<p>A requirement through PEAK is that for every academic concept taught, students also learn about one of the PEAK Energy Actions and then apply those actions in their home, school, or community.</p> <p>There are many prompts contained within the Teacher Resource Guide Book for teachers and students with ideas/activities they can do to apply their learning. Some examples include:</p> <ul style="list-style-type: none"> <li>• Auditing their home to determine where and when electricity is used.</li> <li>• Setting up an energy patrol at their school to ensure computers and lights are turned off at the end of each day.</li> <li>• Educating community members about the benefits of using CFLs while distributing bulbs during a city fair or school event.</li> <li>• Writing their local politicians to encourage the use of renewable energy in their city.</li> </ul> <p>In addition, PEAK provides schools with access to professional energy engineers who work with site facility staff and students to make energy saving improvements to the school facility itself.</p> <p>PEAK also maintains a lending library of cool gadgets that educators can borrow for their classrooms containing lumen meters, wattage meters, hand crank generators, solar cars, hydrogen fuel cell cars, light loggers, Van de Graff, etc.</p>
Teacher training	<p>One full-day of professional development training, including reimbursement for substitute teachers, is offered to each participating PEAK teacher.</p> <p>In addition, teachers and students are supported throughout the school year by the PEAK staff, who are available for site visits, consultations, or additional training.</p>
Mentoring program	<p>Each year, PEAK organizes an exchange program for educators, bringing together new and experienced PEAK teachers from California, Illinois, and Sweden to share best practices and learn from their peers.</p>
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	<ul style="list-style-type: none"> <li>• Kick-off events – involving utility partners, city officials, school district administration, and parents are organized by each school site with help from PEAK staff.</li> <li>• Compact Fluorescent Lightbulb fundraisers.</li> <li>• Science fair judging and prizes.</li> <li>• Exchange opportunities.</li> <li>• Energy Appreciation Day activities.</li> <li>• International PEAK Week activities.</li> <li>• Student contests (artwork, slogan, etc.)</li> </ul>
Grants	n/a
Other projects	<p>The Energy Coalition works in partnership with utilities and communities on many innovative projects aimed at enabling end-users to save energy. An overview of all current projects can be found at <a href="http://www.energycoalition.org">www.energycoalition.org</a>.</p>

<p>Current joint projects with other organizations (please list)</p>	<p><b>Community Energy Partnership</b> Partners:</p> <ul style="list-style-type: none"> <li>• Southern California Edison</li> <li>• The Gas Company</li> <li>• 10 Southern California cities &amp; school districts: Irvine, Brea, Santa Monica, San Bernardino, Palm Desert, Moreno Valley, Cathedral City, Corona, Santa Clarita, Hermosa Beach</li> </ul> <p><b>PEAK San Diego Partnership</b> Partners:</p> <ul style="list-style-type: none"> <li>• San Diego Gas &amp; Electric</li> <li>• San Diego County Office of Education</li> <li>• San Diego Science Alliance</li> </ul> <p><b>PEAK Bay Area Collaboration</b> Partners:</p> <ul style="list-style-type: none"> <li>• Pacific Gas &amp; Electric</li> <li>• City of San Francisco Department of the Environment</li> </ul> <p>Other Collaborations:</p> <ul style="list-style-type: none"> <li>• UCI Green Campus Program</li> <li>• Hydrogen Fuel Cell Teacher Training program</li> <li>• Northern Illinois Energy Project</li> <li>• Municipality of Gothenburg, Sweden</li> <li>• Municipality of Nacka, Sweden</li> </ul>
<p>Interest in joint projects? Yes/no  If so, what type?</p>	<p>YES!!! ☺ We're game for anything that strengthens the ability youth have to be change agents in their families and communities around the way people think about and use energy resources.</p>

Organization	<b>Pacific Gas and Electric Company - PG&amp;E</b>
Address/Education contact	Mail Code N6g P.O. Box 770000 San Francisco, CA 94177
Web site (please describe what the Web site offers)	<a href="http://www.pge.com/energenius">www.pge.com/energenius</a>
Lesson plans	K-8 <sup>th</sup> grade
Supplemental classroom activities, e.g., Hazard Hamlet	
Teacher training	Energy Patrol Teacher Workshops and CFL Fundraiser Workshops
Mentoring program	
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	
Grants	
Other projects	
Current joint projects with other organizations (please list)	
Interest in joint projects? Yes/no	Yes
If so, what type?	Water Districts, Environmental Ed.

Organization	<b>PG&amp;E Solar Schools Program</b>
Address/Education contact	National: 8408 Kao Circle, Manassas, VA 20110 Local: 1764 So. Tuxedo Ave. Stockton, CA 95204  Program Coordinator: Barry Scott <a href="mailto:bscott@need.org">bscott@need.org</a> 209-464-5663
Web site (please describe what the Web site offers)	<a href="http://www.need.org/pgesolarschools/">http://www.need.org/pgesolarschools/</a> Energy Education—Resources, Curriculum, Grant Opportunities, Teacher Training, Energy Management Tools, much more
Lesson plans	K-12, Solar Energy, Solar Photovoltaics, Solar Concentration, School-wide and Service Learning projects. Correlated to state and national science, history, and language arts standards.
Supplemental classroom activities, e.g., Hazard Hamlet	School-wide, Inter-school, and Service Learning Projects. Web-based Solar Photovoltaic Energy Production monitoring activities
Teacher training	Yes, K-12
Mentoring program	Support of teacher-to-teacher networking, partnerships with solar contractors & PG&E programs to support school staff.
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	Yes, special visits and support provided per request.
Grants	\$20,000 School Photovoltaic Installation Grants; \$2,500 & \$5,000 Bright Ideas Grants to Individual Teachers
Other projects	Under development
Current joint projects with other organizations (please list)	Partnerships with National Energy Education Development for curriculum and training and the Foundation for Environmental Education for solar installations.
Interest in joint projects? Yes/no If so, what type?	Yes, any related to energy sources, energy management and conservation, alternative energy, teacher development, school support programs, curriculum development, grant opportunities

Organization	<b>Redding Electric Utility</b>
Address/Education contact	Adrian Mallery 777 Cypress Avenue Redding, CA 96001  <a href="mailto:amallery@reupower.com">amallery@reupower.com</a> 530-339-7210
Web site (please describe what the Web site offers)	<a href="http://www.reupower.com">www.reupower.com</a>  Children and Adult Education A classroom education video.
Lesson plans	In web page
Supplemental classroom activities, e.g., Hazard Hamlet	Hazard Hamlet, renewable information, cfl comparison, handouts, water conservation devices, etc.
Teacher training	
Mentoring program	
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	Many public venues. Science Bowl, Energy fair, classroom presentations, Turtle Bay experience, assemblies, etc.
Grants	
Other projects	
Current joint projects with other organizations (please list)	REU's Energy Experience at Turtle Bay Exploration Park "It's My Planet" teaching third, fourth, and fifth grade students.
Interest in joint projects? Yes/no	Possibly.
If so, what type?	

Organization	<b>Rising Sun Energy Center</b>
Address/Education contact	Ori Skloot, Executive Director 2033 Center Street Berkeley CA 94704  <a href="mailto:skloot@risingsunenergy.org">skloot@risingsunenergy.org</a> 510-665-1501
Web site (please describe what the Web site offers)	<a href="http://www.risingsunenergy.org">www.risingsunenergy.org</a>
Lesson plans	Yes. Energy Conservation, Solar education
Supplemental classroom activities, e.g., Hazard Hamlet	
Teacher training	Yes. Solar education curriculum and hands-on activities for the classroom
Mentoring program	
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	California Youth Energy Services (CYES) trains and employs young people ages 14-24 years old to provide education and hardware installation in residences.
Grants	1. Service provider through the LGP program - PUC funding 2. Service provider for the PG&E Energy Partners Program 3. Grants from multiple water utility districts 4. Foundation grants
Other projects	
Current joint projects with other organizations (please list)	
Interest in joint projects? Yes/no	Yes
If so, what type?	

Organization	<b>Sacramento Municipal Utility District (SMUD)</b>
Address/Education contact	Energy & Technology Center 916-732-6738 <a href="mailto:etcmil@smud.org">etcmil@smud.org</a>
Web site (please describe what the Web site offers)	<a href="http://www.smud.org/education">www.smud.org/education</a>  Info about SMUD educational programs, order forms, Links to energy websites, workshop registration.
Lesson plans	
Supplemental classroom activities, e.g., Hazard Hamlet	Safety board, booklets.
Teacher training	Workshops
Mentoring program	
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	Safety board, or speakers by request depending on topic.
Grants	First year of our Solar grant is this year, school year (06/07), looking to expand into other forms of energy next year depending on funding.
Other projects	
Current joint projects with other organizations (please list)	
Interest in joint projects? Yes/no  If so, what type?	

Organization	<b>San Diego Gas &amp; Electric (SDG&amp;E)</b>
Address/Education contact	Risa Baron, Energy Programs Supervisor 8306 Century Park Court, Suite 42K San Diego, CA 92123  <a href="mailto:rbaron@semprautilities.com">rbaron@semprautilities.com</a> 858-654-1103
Web site (please describe what the Web site offers)	<a href="http://www.sdge.com">www.sdge.com</a>
Lesson plans	Peak Student Program for elementary schools
Supplemental classroom activities, e.g., Hazard Hamlet	
Teacher training	Yes
Mentoring program	No
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	Yes. Work with the San Diego Science Alliance on outreach activities for San Diego schools.  SDG&E speakers bureau will visit schools to discuss energy issues
Grants	No
Other projects	
Current joint projects with other organizations (please list)	3 <sup>rd</sup> Party Program with San Diego City Schools to develop teaching curriculum geared to the Foss kit.
Interest in joint projects? Yes/no  If so, what type?	Yes.  Collaborating with other programs to promote energy efficiency and conservation.

Organization	<b>Strategic Energy Innovations (SEI)</b>
Address/Education contact	Mildred C. Dandridge 185 N. Redwood Dr, Suite 188 San Rafael, CA 94903  415-507-2181 <a href="mailto:mildred@seiinc.org">mildred@seiinc.org</a>
Web site (please describe what the Web site offers)	<a href="http://www.seiinc.org/index.html">http://www.seiinc.org/index.html</a> The web site describes Strategic Energy Innovations' (SEI) mission and programs. A newer version of the web site is under construction. The attached document describes our Educational Programs.
Lesson plans	We have adapted and/or expanded lesson plans we found on the web to meet our needs. We have also developed lesson plans to conduct energy audits of schools and small businesses.
Supplemental classroom activities, e.g., Hazard Hamlet	We have developed a script based on the book <u>King Barkley's Almost Birthday Disaster</u> ; story and music by Lori Richards; Energy Audits and Sustainability Audits.
Teacher training	Dominican University teacher continuing education credit course: <u>Teaching Environmental Sustainability to State Curriculum Standards (K-6)</u> In this exciting new course, teachers will explore a multitude of Sustainability themes, including renewable energy, energy efficiency, conservation, zero waste, and environmental ethics. Through hands-on, interactive exercises, participants will learn to effectively incorporate these topics into the classroom, engaging elementary and lower-middle students with innovative new lesson plans that teach responsibility for the environment while also satisfying state curriculum standards.
Mentoring program	SEI's Awareness for Communities about Energy (ACE) Program often incorporates a mentor program where college students mentor high school students, or where high school students mentor middle school and/or elementary school students.
Speakers' Bureau or other outreach activities (e.g., school assemblies, classroom presentations, Science Bowl, energy fairs, etc.)	Planet Energy, a summer camp or after school program; Awareness for Communities About Energy (ACE) Program; Curb Your Carbon – You Can Stop Global Warming. See the attached document for a description of SEI's educational programs.
Grants	As a small non-profit, SEI depends on grants to offer our programs. We have received grants from the San Francisco Foundation, the Marin Community Foundation, and others.
Other projects	Strategic Energy Innovations empowers under-served markets such as schools, small businesses, local governments, multi-family and affordable housing, and other sectors, to accomplish their energy efficiency goals. SEI provides energy efficiency and renewable energy consulting & related services to these underserved markets: schools & universities, local governments, small businesses and affordable housing communities. For more information see our web site.
Current joint projects with	SEI has partnered with Marin Conservation Corps (MCC), the Environmental

other organizations (please list)	Education Council of Marin (EECoM), Bay Area Air Quality Management District, Youth Leadership Institute, Girl's Inc., Alliance to Save Energy, Cool the Earth, Great Valley Center, Marin Community Foundation, Dominican University
Interest in joint projects? Yes/no	SEI is willing to discuss joint projects with others who share our mission.
If so, what type?	

## Strategic Energy Innovations: Background and Accomplishments

Established in 1997, Strategic Energy Innovations (SEI) has worked with schools, small businesses, local governments, multifamily and affordable housing, and other “underserved” sectors to accomplish their clean energy, green building, and sustainability objectives. As a community builder, SEI empowers communities to marshal their resources, bring people together, resolve challenges, and inspire success. Bringing our local, state and federal project partners to the table, we encourage techniques that achieve lasting results.

### Our Schools Programs

**Awareness for Communities about Energy (ACE) Program:** SEI is promoting energy conservation and efficiency in communities by creating partnerships among three populations: students, senior citizens, and small business owners. SEI trains students or using a train-the-trainer model trains educators to train students to conduct energy efficiency surveys with small businesses and help elders living in senior affordable housing facilities to save money on their utility bills through energy conservation techniques. Since 1998, ACE-trained students have worked in more than 500 senior facilities, small businesses, and residences to help reduce energy use and costs with a potential for savings of almost 1,500,000 kWh of electricity and \$200,000 in costs. Over the years ACE has evolved in many different forms.

**Marin Community Foundation Summer and School Year ACE Program:** Since 2004 SEI has received support from the Marin Community Foundation to partner with the Marin Conservation Corps (MCC) and the Environmental Education Council of Marin (EECoM) to continue to offer the ACE Program using a Train-the-Trainer model. SEI trains MCC staff to include the ACE Program in their school offerings.

**Extension of the ACE Program for This Summer and Next School Year:** This program is similar to the one above, except it will expand to focus on carbon reduction efforts business and public entities can take. These will include transportation, water, waste and energy reduction methods.

**San Francisco Foundation ACE Program:** SEI expanded the ACE Program to train educators in after-school programs to implement the ACE program with primary and secondary students. Once trained, the educators and SEI help students, half of whom are from low income families, to implement a hands-on service-learning program to work with home owners, small business owners, and seniors to increase their awareness about energy and decrease their utility costs. As a result, students build marketable skills and increase their confidence, while becoming environmental leaders in their community.

**Small Business Energy Alliance (SBEA) Energy Savers Program and SEI's Awareness For Communities About Energy Program (ACE):** SBEA received public goods funds to conduct energy surveys and provide the recommended retrofits. SEI partners with SBEA through the ACE Program. College student and/or high school student interns working for SEI conduct the preliminary energy survey of small businesses. SBEA follows up after receiving the potential saving information from SEI and offers to install the energy efficient lighting recommended by SEI and SBEA for 75% to 100% reduction of the cost.

**Awareness for Communities about Energy (ACE) Program - Eureka:** In this job-training program at Eureka High in Humboldt County, SEI trains students receiving Workforce Investment Act assistance to conduct energy audits for 25 small businesses, develop recommendations and action plans, and shuttle the businesses into

subsidized lighting retrofit opportunities. Students also gain confidence and public speaking skills through presentations at their school and in the community.

**California Low-income Energy Efficiency Program (CALEEP) Awareness For Communities About Energy Program (ACE):** Working in conjunction with Navigant Consulting and the Sonoma County Redevelopment Agency, SEI trained high school and college students to conduct commercial and residential energy audits in Sonoma Valley and the Russian River areas of Sonoma County. SEI staff recruited, trained and managed a team of six youth (three area high school and three college students) to bring homeowners and small businesses into the CALEEP program through no-cost energy audits. In addition to the students' report of findings that included low-cost recommendations for lowering monthly utility bills, the 74 homeowners and 40 business owners surveyed were also provided with free lighting and appliance upgrades from the Sonoma County Redevelopment Agency in conjunction with CALEEP public incentive funds.

**Awareness for Communities About Energy Program ACE Sustainability:**

**Marin Community Foundation Sustainability Audit**

SEI staff, a volunteer Sustainability Specialist and two high school students are performing a sustainability audit of the Marin Community Foundation office building. The audit includes a survey of energy, waste, water and transportation.. We mentored the high school students by reviewing what a sustainability audit includes and what to look for. We conducted a sustainability audit of MCF. SEI staff and students will write a report detailing how MCF can become more sustainable.

**Chico State University Research Foundation Sustainability Audit:** SEI staff will assist the Center for Regional And Continuing Education in identifying sustainable products and product consideration in using life cycle analysis to profile additional product categories; in evaluating and identifying concrete steps to take for greening the Center's operation in terms of: employee behaviors; business practices and processes; environmentally friendly procurement; resource sensitive printing and marketing. SEI will also provide a transportation map with CO2 emissions for typical commuting distances to and from campus.

**Green Schools Program:** SEI worked with the Alliance to Save Energy to train teachers to incorporate energy-efficiency activities into their existing curriculum and provide in-depth support and a variety of resources throughout their participation in the program. Each school elects a team of teachers, staff, and students who will plan hands-on learning activities in the school and in their community around energy conservation. Between 2002 and 2006, 7 to 30 schools participated in the program each year. Energy savings from these schools ranged 5%–7.6%.

**California Green Campus Program:** SEI partners with the Alliance to Save Energy to train students and staff on 12 University of California and California State campuses to adopt energy-efficient technologies and to increase behaviors that promote energy conservation across campus housing, dining, and facilities. SEI staff serves as part of a statewide program implementation team that consults with Green Campus student interns at each school on a regular basis—from coordinating initial program discussions with university officials to recruiting and supporting the school's Green Campus student intern team as they plan for, implement, and assess energy-saving projects and sustainability campaigns throughout the academic year.

**Green Residence Hall Demonstration Program:** SEI serves as overall project manager, providing design, facilitation, technical, and marketing assistance in support of on-campus showcases of green lifestyle and energy-efficient products within the campus residential setting. The aim of these demonstrations is to educate students about how they can live more sustainably on campus, while also informing campus staff and administrators about energy-efficient and related green-building standards and policies that they can adopt within their residence halls. Since 2004, SEI has successfully managed a series of these green demonstrations across select University of California, California State, and University of Hawaii campuses.

**Campus Housing Energy Efficiency Program:** Beginning in January 2007, SEI is partnering with QuEST to implement this program at private universities in Southern California. With funding from Southern California Edison under their IDEAA Program, SEI and QuEST will work to provide broad energy-efficient retrofits, train students to conduct energy-efficiency audits and to change out screw-in compact fluorescent lamps (CFLs) in the residence halls, and partner with university staff and students to design, install, and promote green residence hall demonstrations on select Southern California private campuses.

**Bay Area Air Quality Management District Awareness for Communities About Energy Program-Clean Air (ACE-CA):** Strategic Energy Innovations is proposing to train students, staff and teachers to reduce energy and GHG emissions in their schools and create no-cost or low cost strategies such as changes in behavior or operations, aimed at reducing the production of GHGs and other air pollutants. Our goal is to work with districts throughout the Bay Area, integrating the approach into the schools' curriculum.

**Dominican University Teacher Training:** This summer SEI Staff will teach a course targeting 3<sup>rd</sup> – 6<sup>th</sup> grade teachers, enabling them to teach environmental sustainability to state curriculum standards. Teachers will explore a multitude of sustainability themes, including renewable energy, energy efficiency, conservation, zero waste, and environmental ethics. Through hands-on, interactive exercises, teachers will learn to effectively incorporate these topics into the classroom, engaging elementary and lower-middle students with innovative new lesson plans that teach responsibility for the environment while also satisfying state curriculum standards. In addition, the teachers will participate in a lab where they teach at SEI's summer camp *Planet Energy*, and in their classrooms.

**Alameda Energy Efficient Schools Program:** SEI worked in a partnership with Alameda Power and Telecom's Energy Efficient Schools Program to develop project-based energy education curricula for elementary and middle school teachers in Alameda County. The curriculum focuses on geothermal, hydropower, and other renewable sources to reflect Alameda Power and Telecom's unique blend of power.

**Marin Community Foundation - Earth Day Everyday Campaign:** With three other non-profit organizations based in Marin County, we are designing a high-visibility campaign that raises awareness around the issue of climate change and will result in a measurable reduction of Marin's carbon footprint. The campaign will educate elementary and middle school students on climate change by creating a model standards-based curricula and engaging youth to obtain commitments from parents and the community to reduce household and transportation-related carbon emissions.

**Planet Energy Summer Camp:** SEI conducts week long summer day camps that teach children about energy – what it is, where it comes from, and how we can use it wisely to help our planet. Sessions focus on youth targeted hands-on experimentation with exciting outcomes, including solar racecar races, building and preparing snacks in solar ovens, becoming energy detectives and learning how renewable energy can be used in their own communities.

**School Energy Efficiency Program:** SEI helped to educate students about energy, train teachers about energy efficiency, and improve district facilities. The SEI team helped to gain participation among the school districts, conduct training workshops, and coordinate the implementation of demonstration projects. Before and after curricula were developed to help students understand the energy-efficiency effect of the demonstration classrooms. The SEE program served 55 school districts in 11 counties in California's Central Valley.

**Building Operator Certification (BOC):** SEI conducts marketing and administers BOC courses across California on behalf of the Northwest Energy Efficiency Council. This nationally recognized certification imparts skills and knowledge in the operation of facilities in an energy efficient manner.

**Sol-Ed:** SEI trains high school science students in the fundamentals of energy and self-generation through photo-voltaics. Students learn hands-on, cross age solar activities to teach to younger grades. Students also conduct a solar site analysis of the high school, develop a system design and present their findings to the School Board to encourage solar at their school.